UNITED STATES PATENT OFFICE.

HELEN A. BLANCHARD, OF PORTLAND, MAINE.

SEAM FOR SEWED ARTICLES.

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To all whom it may concern:

Be it known that I, HELEN A. BLANCHARD, of Portland, Cumberland county, State of Maine, have invented a new and useful Improvement in Seams for Sewed Articles, of which the following is a specification.

My invention has reference to fabrics and the manner of uniting and overedging same; and it consists of features fully set forth in the following specification and accompanying drawings, forming part thereof.

My invention relates more specifically to knitted fabrics, such as underwear; and it consists of an expandible loop or series of loops made from a single thread in such a manner as to make the fabric yielding at the seam. The loops, aside from being expandible and overedging, are, of course, fabric-uniting. The sewing is done while the two pieces of fabric to be united are in lateral contact. They are then turned endwise, the thread while so turning slipping through the needle-holes to a degree permitting this endwise fabric extension.

In the drawings like parts are referred to by marks or figures of a corresponding character in the different views.

Figure 1 is a plan view of my fabric while the sides are in lateral contact. Fig. 2 is a plan view of my fabric with the united fabric ends endwise extended. Fig. 3 is a section on line *x* of Fig. 1. Fig. 4 is a bottom plan of my fabric and stitch spread out. Fig. 5 is a transverse section through the fabric with the stitch spread out and the fabric endwise extended. 100 is the upper and 101 is the lower portion of the fabric to be united. Fig. 6 is the first operation in my stitch formation, and Fig. 7 the second.

In forming this stitch I employ two needles and a single thread. The thread is normally held across the path of the needles while descending. The holes formed by the needles while descending are shown at *i* and *i'*.

The mechanism or means I employ in practice to unite fabric ends and form my stitch bears no relation to the invention here set out, as this invention relates specifically to the fabric statically in its relation to the manipulation of the thread.

E is what I term the "fabric" end of the thread, and A is the spool end thereof. In the manipulation of the thread to carry out my invention I employ two needles. The dotted lines *n* and *n'*, Fig. 6, show the position of these needles vertically. In addition to these needles, however, I employ supplemental thread-manipulating mechanism; but the description of any mechanical means for this thread manipulation is not essential here, as is manifest. In their downward movement the needles form two loops *l* and *l'*. The two ends of the fabric which are thus penetrated and through which the needles are thereby carried are shown at 100 and 101. The loop *l* is of greater length than the loop *l'*, and the needle *n* must be of corresponding greater length than the needle *n'*. The thread and fabric are thus both relieved from stress during subsequent manipulation of the thread. The loop *l*, after fabric penetration, as above described, is pushed toward *l'* or swung in the line of the dotted arc O until it coincides with the position of loop *l'*. These loops are then further extended as a common loop. (Shown best in Fig. 7.) It will be observed that these loops just described are "under-fabric" loops, so to speak. The loop C (best shown in Figs. 6 and 7) is then carried to the edge of the fabric and passed through the compound loop formed by the loops *l* and *l'*. This completes the operation of a single stitch formation. In subsequent stitches, which of course are necessary in the function of sewing, the operation is repeated—that is, the spool end of the thread A is again thrown in the path of the needles aforementioned, and the loop C of the stitch just described is chained to its successor on or near the edge of the fabric, thus overedging the same—that is, covering the edge thereof, as shown in Fig. 2. It is hardly necessary to say that B is the thread on the top of the fabric and D is the thread on the under side thereof. After uniting the fabric ends as above by separating the same and extending the ends in endwise alinement the loose manner in which the stitch is formed permits of the slipping of the thread through the holes *i* and *i'*, and the united edges are covered, as shown in Fig. 2.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture